

1
2
3 **STATE OF ILLINOIS**
4 **ILLINOIS COMMERCE COMMISSION**

5
6 **DIRECT TESTIMONY ON REHEARING OF DERRICK HAMILTON**
7 **ON BEHALF OF AMERITECH ILLINOIS**
8 **DOCKET 00-0393**
9

10 **I. INTRODUCTION AND PURPOSE**

11
12 **Q. Please state your name and business address.**

13
14 A. My name is Derrick F. Hamilton. My business address is 1010 Wilshire Boulevard,
15 Los Angeles, California 90017. I am Vice President, Network Services (Data) for
16 SBC Operations, Inc.

17 **Q. Please describe you educational and professional background.**

18
19 A. I received a Bachelor of Science in Engineering from California State University, Los
20 Angeles in 1991 and a Master of Business Administration from the University of
21 California, Los Angeles, in 1999. I joined Pacific Bell in 1991. Since then, I have been
22 involved in a variety of positions supporting the operations and management of Pacific's
23 network. Specifically, I was responsible for the operation of two central offices in the
24 Los Angeles area and managed the copper inter-office and end office cabling
25 operations in the Greater Los Angeles area. As General Manager, Network
26 Operations, I was responsible for the management of service activation, service
27 assurance and network reliability in the Greater Los Angeles region. I have also been
28 involved in the core process reengineering activities, methods and procedures
29 publication, new product introduction, and OSS User Support.

R.

1 **Q. Please describe your current responsibilities.**

2

3 A. I am currently responsible for Special Services and Data Services Support. My areas
4 of responsibility include the support of Center and Field Operations for Special
5 Services, and support of all systems for inventory, design, work management, and
6 testing.

7 **Q. Have you ever testified before this Commission?**

8

9 A. Yes, on rehearing in Docket 00-0592

10

11 **Q. What is the purpose of your testimony?**

12

13 A. I would like to address the operational impact of the Commission Order in this case
14 (Order) as it relates to Project Pronto. Specifically, I will addresses the adverse
15 customer service and network impacts to Illinois consumers and business customers that
16 would occur if Ameritech Illinois were to deploy Project Pronto DSL-related facilities in
17 accordance with the Order, particularly the requirement that CLECs be allowed to own
18 line cards placed in Ameritech Illinois Next Generation Digital Loop Carriers
19 (NGDLCs). I will outline the operational difficulties the Order would cause in
20 Ameritech Illinois' ordering, provisioning, maintenance and repair processes. I will
21 demonstrate the process, system, and technology changes that would be necessary to
22 comply with the Order. I will describe the extensive process that Ameritech Illinois
23 already undertakes to ensure that new technology introduced into the network complies
24 with electrical, logical, thermal and physical criteria to ensure not only the reliability of
25 the new component itself, but of the network to which it is proposed it be connected.

- 1 Finally, I'll explain why virtual "collocation" of CLEC owned line cards at a Project
2 Pronto Remote Terminal (RT) would:
- 3 • be less efficient than the wholesale Broadband Service (BBS) offering proposed by
4 Ameritech Illinois.
 - 5 • require extensive systems and operational changes which would take significant time
6 to implement at substantial cost.
 - 7 • result in longer provisioning and maintenance intervals.
 - 8 • reduce the reliability of the network.
 - 9 • reduce the maintainability of the network.
 - 10 • stifle development of additional technologies.

11 **II. ADVERSE OPERATIONAL AND NETWORK IMPACT**

12 ~~Q: What operational difficulties would arise if CLECs were allowed to own and~~
13 ~~designate line cards placed in Ameritech Illinois' Project Pronto DSL~~
14 ~~equipment?~~

15 ~~A: The most fundamental change, which would have a ripple effect throughout the relevant~~
16 ~~Ameritech Illinois processes and systems, would be from Ameritech Illinois allowing~~
17 ~~"collocation" of line cards in advance of any order (by pre-installing them in the~~
18 ~~NGDLCs) and having to install or replace individual cards on a case-by-case basis~~
19 ~~associated with CLEC service orders or trouble reports. Because the Order requires~~
20 ~~that each CLEC customer be allowed to own and use its own line cards, the CLEC~~
21 ~~would need to ship the appropriate card to Ameritech Illinois for each order (or at a~~
22 ~~minimum for a small set of orders in the event the CLEC uses multi-port cards) or~~

1 trouble report it submits, and would require Ameritech Illinois to associate that card
2 with the appropriate order or trouble report. ~~For this to occur, extensive changes to~~
3 ~~Ameritech Illinois' ordering, provisioning, maintenance and repair processes would~~
4 ~~have to take place.~~

5 **Q. Does Ameritech Illinois offer any services today that require it to track**
6 **individual, CLEC-owned components of the network?**

7 ~~A. No. Today, there are no services offered over the Ameritech Illinois network that~~
8 ~~require the tracking of individual network components owned by CLECs. The Order~~
9 ~~would require that Ameritech Illinois modify its systems to accept and process new~~
10 ~~fields of information associated with the individual pieces of inventory (i.e., line cards)~~
11 ~~received from the CLEC. Some of these changes would need to be made in systems~~
12 ~~that are not owned by Ameritech Illinois, requiring system development at substantial~~
13 ~~cost and taking a significant amount of time to implement.~~

14
15 ~~From a process perspective, Ameritech Illinois would have to make fundamental~~
16 ~~changes in the way it processes both service orders and trouble tickets. Among other~~
17 ~~things, as each line card is received, separate technicians would have to be dispatched~~
18 ~~to install the card in the network and to complete the service order or perform the work~~
19 ~~to restore the service reported in trouble. Adding new or different components to the~~
20 ~~network is a complicated process because of the configuration of the Remote Terminal~~
21 ~~and the need to maintain a clean environment to ensure the equipment can operate at a~~
22 ~~high level of reliability. This Order would require that the process of installing line cards,~~

1 performed on a bulk basis today, be performed as orders and reports are received -- a
2 far less efficient, more time consuming and more costly method to accomplish loading of
3 inventory.

4 Q: ~~What system and process changes would be required to comply with the~~
5 ~~Order's line-card requirement?~~

6 A: ~~When a CLEC submits an order today for products or services that require a~~
7 ~~connection to the CLEC network, the CLEC order includes a field called the~~
8 ~~Connecting Facilities Assignment (CFA), which is passed to Ameritech Illinois.~~
9 ~~Ameritech Illinois uses this information to tell its provisioning system where the CLEC~~
10 ~~facilities and the Ameritech Illinois facilities meet. In order for Ameritech Illinois to~~
11 ~~know how to provision, maintain or repair the CLEC customer's service provided over~~
12 ~~a CLEC's line card in the Pronto DSL architecture, however, additional information~~
13 ~~would have to be passed. First, some designation identifying the type of card to be~~
14 ~~used would need to be received. CLECs have stated that they would offer different~~
15 ~~"flavors" of advanced services over this architecture, so a means to designate the~~
16 ~~different types of cards must exist (setting aside the question of whether such cards~~
17 ~~would work at all, which is addressed by other witnesses). Secondly, the CLEC would~~
18 ~~need to provide a unique identifier for each card, such as the Serial Number. This~~
19 ~~would allow Ameritech Illinois to associate the right card with the right order(s). Third,~~
20 ~~virtual channel and virtual path information would have to be provided in order to~~
21 ~~connect the card to the CLEC facilities in the central office. In order for this additional~~
22 ~~information to be received and processed, changes would have to occur in the pre-~~

1 ~~ordering, ordering, provisioning, and repair OSS and many back-office systems.~~
2 ~~System fields would have to be modified so that the data can be accepted, passed and~~
3 ~~processed in the pre-ordering, ordering, provisioning, maintenance and repair flows.~~

4 **Q:** ~~What would it take to make these systems and operational changes? How~~
5 ~~much time, how much cost?~~

6 **A:** ~~To comply with the Commission's Order, Ameritech Illinois would have to make~~
7 ~~substantial changes to the way that it does business today. Ameritech Illinois would~~
8 ~~need to develop and implement a means of accepting and processing additional~~
9 ~~information from CLECs that would designate the type of card that the CLEC would be~~
10 ~~using in the network. This would require modifications to the pre-order OSS and~~
11 ~~associated back-office systems to provide information on the availability of a "slot."~~
12 ~~This also would require the modification (or possibly the creation of a new) system to~~
13 ~~track "slot inventory," a capability that does not exist today.~~

14
15 ~~The ordering OSS and associated back office systems also would have to be modified~~
16 ~~to accept and process information on the type of card, such as the Common Language~~
17 ~~Equipment Identifier (CLEI) and a unique identifier of the individual card (such as the~~
18 ~~Serial Number). The provisioning and maintenance back office systems would have to~~
19 ~~be modified to process this information. Inventory systems would have to be modified~~
20 ~~to store new fields, work management systems would have to be modified to pass this~~
21 ~~information to technicians so that work could be performed (placing the appropriate~~
22 ~~card in the appropriate slot), and maintenance systems would have to be modified to~~

1 ~~display card and slot information for trouble isolation and dispatch purposes. In all,~~
2 ~~there are more than 20 interfaces and back-office systems that would require changes~~
3 ~~(EDI, CORBA, LEX, LASR, Multiple Middleware Services Applications, SORD,~~
4 ~~SOAC, TIRKS, LFACS, WFA/C, WFA/DO, LMOS, PICS, SOLID, TEMS, to~~
5 ~~name the ones that come immediately to mind). To identify at this time the exact~~
6 ~~manner in which each of these systems would be impacted is not possible, but they are~~
7 ~~related and complex.~~

8
9 ~~The ordering and associated back office systems would also have to be modified to~~
10 ~~create a means of inventorying and provisioning PVPs and PVC as “UNEs.” There are~~
11 ~~no means in our system today to track this information for a particular CLEC, nor are~~
12 ~~there means in our provisioning systems to direct a particular service order to a portion~~
13 ~~of a PVP allocated to an individual CLEC. This creates another instance where~~
14 ~~Ameritech Illinois and the CLEC would have to maintain separate databases to track~~
15 ~~the same environment. Clearly, given the issues that are faced in the maintenance of~~
16 ~~today’s Customer Facilities Assignment (CFA) databases, this introduces significant~~
17 ~~complexity and inefficiency. Further, because the Order might allow CLEC customers~~
18 ~~to obtain PVPs and PVCs in any designated amount, the chances of constant changes in~~
19 ~~allocation of PVP and PVC bandwidth on a per-order basis could occur, and would~~
20 ~~present a tremendous challenge. CLECs could submit orders increasing their PVP as~~
21 ~~each order (or small set of orders) is placed, or decreasing it as each order (or small~~
22 ~~set) is disconnected. Further, the simple advantage of “sharing” in the broadband~~

1 ~~network architecture is lost with this “sub-optimal” network configuration driving~~
2 ~~increased activity for reduced benefit.~~

3
4 **Q: ~~But the FCC and this Commission have issued orders that required OSS~~**
5 **~~changes before. How is this different?~~**

6 **A: ~~A primary way it is different is the magnitude of the changes that would be required by~~**
7 **~~the Order. By way of comparison, I was the responsible Senior Manager in the~~**
8 **~~Network organization for the implementation of the FCC’s Line Sharing Order~~**
9 **~~(working closely with my peers in Wholesale and Information Technology), an effort~~**
10 **~~which required modifications that were far simpler than this effort would be. We~~**
11 **~~attempted to implement a set of processes for providing CLEC access to HFPL within~~**
12 **~~the 180 days that were allotted by the FCC, and were successful in getting a process in~~**
13 **~~place that would accomplish the intent and word of the FCC’s Order. However, that~~**
14 **~~process is far from ideal. Because of the timeframes that are required to modify many~~**
15 **~~of the proprietary back-office systems used by Ameritech Illinois, we had to engage in a~~**
16 **~~number of sub-optimal solutions and extensive manual work-around to accomplish the~~**
17 **~~objectives of the FCC’s Order. Ameritech Illinois and the other SBC companies~~**
18 **~~continue to work today to improve the HFPL product, and in the overall analysis, it will~~**
19 **~~take over two years and tens of millions of dollars to completely implement a~~**
20 **~~mechanized solution.~~**

1 ~~The effort necessary to implement the Commission Order here would be, in my opinion~~
2 ~~and based on my experience, at least twice as complex. The fundamental changes from~~
3 ~~a system perspective (not to mention the process change and significant technician~~
4 ~~training issues) would be far-reaching and significant. But even beyond these changes is~~
5 ~~the additional significant logistical changes that would have to be implemented for~~
6 ~~Ameritech Illinois to establish what I will term the CLEC Asset Logistical Management~~
7 ~~System (ALMS). The ALMS would:~~

- 8 ~~• create handling centers;~~
- 9 ~~• notify CLECs where to ship their line cards;~~
- 10 ~~• match incoming cards to service orders or trouble reports (or hold them if~~
11 ~~the order or report has not been received);~~
- 12 ~~• notify customers if we have an order for which we have no card;~~
- 13 ~~• ship the card to an appropriate Field Operations Center (the FOC would~~
14 ~~then dispatch a technician to open the Controlled Environmental Vault~~
15 ~~(CEV) housing the RT, insert the card into the appropriate slot in the RT,~~
16 ~~and notify the downstream provisioning organizations, and ship the~~
17 ~~packaging material back to the ALMS);~~
- 18 ~~• receive back Electrostatic Discharge (ESD) packaging from the Field~~
19 ~~Operations Center (ESD packaging is expensive and would likely be~~
20 ~~requested to be recovered);~~
- 21 ~~• ship ESD packaging back to the CLEC;~~

- 1 • ~~process requests if CLECs wish to retrieve or change out cards in bulk (e.g.~~
2 ~~for warranty, engineering complaint or product change); and~~
- 3 • ~~handle all inquiries on card location and status from FOCs CLECs and~~
4 ~~other organizations involved in the provisioning or repair process.~~

5 Because there were potentially hundreds of RT locations that were planned for Pronto
6 DSL facilities prior to the Order, there would need to be a means of getting the right
7 card, matched to the right order, in the hands of a technician in order to provision the
8 service. ~~Line cards are sensitive pieces of electronic equipment. Each card must be~~
9 ~~enclosed in a sealed, padded, ESD safe container from the time it leaves the CLEC~~
10 ~~facility until the time that the technician is ready to remove it from the case and place it~~
11 ~~into the appropriate slot in the RT. The ALMS would have to be created from scratch,~~
12 ~~as their operations would likely be too small to effectively run as part of our normal~~
13 ~~equipment and warehousing operations today. Additionally, running them as a separate~~
14 ~~operation reduces the risk that CLEC assets could become commingled with our own.~~

16 Q: ~~Can you estimate what it would cost to create an ALMS?~~

17 A: ~~Estimating the costs of the systems and process changes and the creation of the ALMS~~
18 ~~to an exact dollar figure is not possible without the creation of a system architecture to~~
19 ~~evaluate how the implementation would occur, but it is certain that the costs will be high.~~
20 ~~There is little argument that could be put forth indicating that this will not cost tens of~~
21 ~~millions of dollars, the question is simply how many tens. Ultimately figuring out an~~
22 ~~exact dollar figure would take three to six months. And, I estimate that it would take an~~

1 additional two years for developing business requirements, programming, testing and
2 implementation.

3 **Q: What are the operational impacts of having to manage capacity in this way?**

4 **A:** The Commission's Order would require that we fundamentally change the way that we
5 order and allocate the equipment in our network. The changes that would be required
6 to manage the capital allocation, capacity relief and inventory management and tracking
7 would require extensive changes to our engineering systems, our capital management
8 financial analysis systems and the criteria that are used to evaluate whether further
9 investments in the network can yield a return. I am not as much of an expert on the
10 names of the particular systems involved in the engineering and finance areas, but I do
11 understand how they are applied. Further, applying many of the basics from my
12 business school courses, I am convinced that the additional constraints imposed by the
13 Commission's Order, when added to the business planning models, would increase
14 investment (both fixed and variable cost) and reduce utilization, making the overall
15 project less likely to yield a return (in fact, very likely to make future projects Net
16 Present Value negative, completely discouraging future investment). Other Ameritech
17 Illinois witnesses speak to this in their testimony.

18

19 Finally, maintaining the network would become far more complicated. Today, when
20 there is a need to replace a certain vintage of card in the network for maintenance or
21 reliability purposes (such as a Class A Product Change Notice, or PCN), all cards of
22 that series are replaced in a programmed manner. If a need were to arise to replace a

1 ~~vintage of card, under the requirements of this Order, technicians would have to know~~
2 ~~which slots to change, and which to “skip” (since they are owned by other parties).~~
3 ~~The resulting additional complexity would cause the changeover to take much longer. In~~
4 ~~the past, we were able to make changes to entire series of cards quickly, and in many~~
5 ~~cases without customers even being aware that their service was interrupted. With the~~
6 ~~additional time that would be added to the process, the chance of customers being~~
7 ~~impacted by this activity would be significantly increased. Further complicating the~~
8 ~~situation is the fact that there is significant ownership churn in the industry. Changing~~
9 ~~over ownership (or removing services and cards in some extreme cases) is an incredibly~~
10 ~~complex ordeal. If one provider merges with or takes over another or, worst case,~~
11 ~~ceases to be a going concern, the ability to reuse that slot and card would place serious~~
12 ~~administrative burden on Ameritech Illinois, particularly if it is a multi-port card. What~~
13 ~~we used to take for granted as a simple change would instead be a major effort.~~

14 **Q:** ~~You indicate that Ameritech Illinois undertakes extensive electrical, logical,~~
15 ~~thermal and physical testing of network components today. What are those?~~

16 **A:** ~~In order to introduce a new component to the network, two things must be validated:~~
17 ~~First, that the component itself is reliable, and second, that it does not introduce risks to~~
18 ~~associated components to which it will connect and with which it will interact.~~

19 ~~Ameritech Illinois performs extensive evaluation of the electrical, logical, thermal and~~
20 ~~physical properties of components it introduces to the network. We ensure that the~~
21 ~~voltages and currents are safe for the network and for the employees that will handle~~
22 ~~them and that no foreign voltage or current are introduced that could harm other~~

1 ~~equipment or personnel performing work on them. We validate that software and~~
2 ~~firmware in the components is free of errors and can communicate effectively with other~~
3 ~~programs in other components or controllers. We assess the heat dissipation caused by~~
4 ~~the operation of the component to ensure that individually and collectively that amount~~
5 ~~of thermal load can be safely and efficiently removed. Finally, we validate the physical~~
6 ~~strength of the component to withstand the handling process and any anticipated~~
7 ~~abnormal physical conditions (e.g. earthquakes).~~

8 **Q: ~~Why is allowing CLEC customers to "collocate" their own line cards less~~**
9 **~~efficient?~~**

10 **A: ~~The requirement to allow card level "collocation" is counter to the way the network,~~**
11 **~~and particularly the outside plant, is designed. Connections between pieces of plant and~~**
12 **~~equipment ideally should occur at a point where the network is exposed to the lowest~~**
13 **~~level of risk. This occurs at the Serving Area Interface (SAI). The SAI is a terminal~~**
14 **~~where one piece of plant can be connected to another at a point where it is least~~**
15 **~~vulnerable (or conversely, most durable). Opening the SAI and connecting two pieces~~**
16 **~~of plant together using a "jumper", or short piece of insulated wire, minimizes the~~**
17 **~~exposed pieces of plant. The network was designed to allow these interfaces to be~~**
18 **~~opened and closed on a daily basis. They offer adequate protection to the plant at that~~**
19 **~~point because there is simply a need to protect it from tampering and only the harshest~~**
20 **~~of elements.~~**

21

1 When SBC deploys the Pronto DSL network, it pre-loads line cards in the Remote
2 Terminal in anticipation of growth for the area to be served. This growth is projected
3 out for a period of one year, and the appropriate amount of inventory is placed. When
4 a service order is received, SBC assigns the order to a port in the terminal and activates
5 the port using software. Under the Order, each ticket (or a multiple of tickets for
6 multiple cards) would require a dispatch, the opening of the RT, and the placement of a
7 card. All of the other steps would still have to occur to activate the service.

8
9 ~~Again, this is counter to the design of the network. The network was not designed to~~
10 ~~have the "slot" (which is actually a complex receptacle for a board containing a number~~
11 ~~of components) be the interface where Ameritech Illinois' facilities connects to those of~~
12 ~~the CLEC. The process of opening up a CEV is complex. Technicians have to locate~~
13 ~~the CEV (many of which are located underground due to local zoning laws) and test it~~
14 ~~to be sure the environment inside the vault is safe. It may require that the technician~~
15 ~~pump out any gases that collected in the vault prior to entering. The technician then~~
16 ~~must enter the vault, determine which slot is to be used for the card, and place the card~~
17 ~~in that slot. The technician then must leave the vault and seal it to ensure that it is~~
18 ~~environmentally isolated and that the network components inside are safe. These~~
19 ~~additional steps make slot-at-a-time provisioning far more complex, time consuming and~~
20 ~~costly, especially when compared to the faster provisioning available with the wholesale~~
21 ~~Broadband Service.~~

1 Q: ~~Why would the Commission Order result in longer provisioning and~~
2 ~~maintenance intervals?~~

3 A: ~~As described above, slot-at-a-time provisioning is far more complex and time~~
4 ~~consuming than provisioning under the wholesale Broadband Service or than the current~~
5 ~~provisioning system for xDSL-capable unbundled copper loops. The time required to~~
6 ~~perform the additional steps described above would be added to the provisioning and~~
7 ~~maintenance process. Separate from all of the steps required today, the act of receiving~~
8 ~~a card, routing it to the appropriate technician, dispatching that technician, and loading~~
9 ~~the card in the network would take, at a minimum, an additional two days and could~~
10 ~~take as much as four days initially to handle as a manual process, until systems solutions~~
11 ~~could be developed and implemented. Add those two to four days to the provisioning~~
12 ~~interval available today with the wholesale Broadband Service, and CLEC customers~~
13 ~~could have to wait nearly twice as long to receive service.~~

14

15 Similarly, for maintenance, instead of the technician going to the SAI and moving the
16 customer loop to another assignment there, the process would require that the
17 technician follow the steps to load a card in order to replace one. Granted, in some
18 cases, an additional port may be available on another card owned by the same CLEC
19 customer, ~~but in many cases, the restoration of service would require access to the RT~~
20 ~~in the CEV.~~

21 Q: ~~You state that the Commission Order would reduce the reliability of the~~
22 ~~network. How is that possible?~~

1 ~~A. In two ways. First, the simple fact that the implementation of the Order would require~~
2 ~~more intrusion into the Remote Terminals would add risk to the network. A Remote~~
3 ~~Terminal is a sealed, environmentally-isolated area designed to protect network~~
4 ~~components from particulates, heat, moisture, and corrosives that are found in the~~
5 ~~environment. Forcing multiple trips to the RT and the opening of them puts the network~~
6 ~~at additional risk. These Remote Terminals are a means to serve not only advanced~~
7 ~~services customers, but consumer and business customers of the Ameritech Illinois~~
8 ~~network as well. All of these customers would be put at additional risk.~~

9
10 Secondly, the Order currently would allow for a CLEC to place a card into the slot
11 even when that type of card is not currently offered by Ameritech Illinois and not
12 designed for the equipment Ameritech Illinois would deploy. This could be a card that
13 has been developed by the vendor of the RT chassis, Alcatel, for a different model
14 NGDLC, or even by some other third party vendor. ~~While either Alcatel or the third~~
15 ~~party vendor may assure the CLEC that the card is compatible with Ameritech Illinois'~~
16 ~~network, the introduction of this card could initiate software faults with the controller or~~
17 ~~with other cards in the chassis providing service to other customers. In some cases, a~~
18 ~~previously undetected fault could cause service outage.~~

19
20 ~~Indeed, incompatibility issues could be difficult to detect and isolate. In some cases~~
21 ~~there could be disputes over an outage caused by a card that has not been through~~
22 ~~Ameritech Illinois' extensive testing and approval process. This could result in litigation,~~

1 particularly if there is impact to services such as 911. If the Commission intended to
2 order only the provision of line cards that provide only services already tested and
3 approved on the Ameritech Illinois network, this is of course a moot point. As a
4 practical matter, of course, it is difficult to imagine that any CLEC would want to
5 "collocate" cards that are already available at a lower cost through the wholesale
6 Broadband Service, since the Broadband Service would not carry the additional costs
7 and delays of slot-at-a-time provisioning.

8 **Q: How could a defective or incompatible line card affect 911 service?**

9 **A:** A common, perhaps the most common, use of the Pronto DSL network by CLECs
10 would be to lease the High Frequency Portion of the Loop (HFPL) UNE for "line
11 sharing." In a HFPL arrangement, the CLEC provides the end user's data service and
12 the HLEC provides the end user's voice service, including 911. In the planned Pronto
13 architecture, both services would go to the same line card, and if that line card is
14 defective or incompatible with Ameritech Illinois' network, it could impair or cause an
15 outage of both data and voice services. In other words, Ameritech Illinois' voice
16 customer could be put out of service because of a problem with the CLEC's line card.
17 Ameritech Illinois could not unilaterally fix the problem until the CLEC provided a
18 replacement card or made some other arrangements to restore service. In the
19 meantime, Ameritech Illinois' customer could be without voice and 911 service and
20 would in all likelihood blame Ameritech Illinois for the outage.

21 **Q: You indicated that the Order could impact the maintainability of the network as**
22 **well. How so?**

1 ~~A. For reasons similar to those above. Adding equipment to the network that has not been~~
2 ~~tested for compatibility with the Ameritech Illinois RT chassis, its associated element~~
3 ~~management systems, surveillance systems, performance monitoring systems and~~
4 ~~provisioning and repair systems introduces the likelihood that problems introduced in the~~
5 ~~network would be more difficult to identify, isolate and resolve. Additionally, CLECs~~
6 ~~will have a tendency to believe (through no fault of their own) that any failure of the card~~
7 ~~they own in the network must be attributable to a problem with the chassis or the~~
8 ~~associated systems. Extensive validation and isolation by Ameritech Illinois would be~~
9 ~~necessary to convince the CLEC customer that it is necessary to initiate the card~~
10 ~~replacement process. Because the process is so onerous (for the CLEC customer as~~
11 ~~well as Ameritech Illinois), pains would be taken to avoid it to the maximum extent~~
12 ~~possible. This could result in testing and isolation of the network that is far beyond what~~
13 ~~is necessary for Ameritech Illinois to otherwise maintain its operations, taking away~~
14 ~~from the services that are provided to other consumer and business customers on the~~
15 ~~Ameritech Illinois network.~~

16 **Q. One of the perceived benefits of this Order is the acceleration of the**
17 **development of new technologies that can be offered over the Ameritech**
18 **Illinois network. Would the Order accomplish that?**

19 A. I don't believe so. Development of new technology to be offered over the Ameritech
20 Illinois network is done most efficiently in conjunction with those involved in the
21 assessment, operation and management of the network, namely Ameritech Illinois. The
22 hardware, software, firmware, communications networks, and associated OSS, back

1 office systems, databases, processes and employee training (on the part of both
2 Ameritech Illinois and the CLEC customers) is extremely complex. To think that a
3 CLEC, even as technologically savvy as some of them are, could develop technology to
4 offer new services over the Pronto DSL network without our partnership is a fallacy.
5 Indeed, this is specifically why Ameritech Illinois offered to work collaboratively with
6 the CLEC community to address further solutions over our network as part of the
7 commitments we made to the FCC in the *Pronto Waiver Order* proceeding on line-
8 card ownership. It is in our, and our customers', best interest.

9
10 Development of technological solutions for Ameritech Illinois' network by CLECs
11 outside of this environment would result in an overly complex, cost laden, time-
12 consuming process. ~~In fact, implementation of the Order would require that Ameritech~~
~~13 Illinois divert resources that would otherwise work toward making additional capability~~
~~14 available (in a reliable and robust manner) on the Pronto DSL network. If the~~
~~15 Commission's goal is to spur technology, it appears to me that this Order accomplishes~~
~~16 the opposite. For example, it would be far easier for a CLEC to develop its own~~
~~17 technology than to develop a technology that works with the Pronto network. Indeed,~~
~~18 there is a technology solution available today for the multiple DSL "flavors" that the~~
~~19 CLECs claim to desire, they only need purchase and place it. Surely this is cheaper and~~
~~20 would allow them quicker access to the market.~~

21

1 A. ~~Only if the CLECs don't know whether there is a market for these potential offerings~~
2 ~~would they choose to attempt to shift all of the risk to another party such as Ameritech~~
3 ~~Illinois. And if the market is so small as to not justify facilities-based investment by the~~
4 ~~CLECs themselves, then certainly there would be no means whatsoever for Ameritech~~
5 ~~Illinois to recover the costs associated with this Order. There are additional anti~~
6 ~~technology risks with the Commission's Order. The high cost of implementation could~~
7 ~~drive additional DSL "flavors" to either never be developed, or, at a minimum, never be~~
8 ~~used. Further, the diversion of critical resources could preclude Ameritech Illinois from~~
9 ~~developing other services that CLEC customers desire and could get more quickly at~~
10 ~~lower cost through future enhancements to the Wholesale Broadband Services offering.~~

11 Q. Does this conclude your direct testimony on rehearing?

12 A. Yes.